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PATENT APPLICATION

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IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Nina BHATTI et al.

Confirmation No.: 3580

Application No.: 09/299,684

Examiner: Christopher D. Biagini

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Group Art Unit: 2142

Title: ADAPTIVE WEB SERVER

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TRANSMITTAL OF APPEAL BRIEF

Transmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on 11/04/2008.

☒ The fee for filing this Appeal Brief is \$540.00 (37 CFR 41.20).

☐ No Additional Fee Required.

(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

☐ (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d)) for the total number of months checked below:

☐ 1st Month
\$130

☐ 2nd Month
\$490

☐ 3rd Month
\$1110

☐ 4th Month
\$1730

☐ The extension fee has already been filed in this application.

☒ (b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account 08-2025 the sum of \$540. At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees.

Respectfully submitted,

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

| | | | |
|------------------|----------------|--------------------|----------------------------|
| Appellant: | BHATTI et al. | Patent Application | |
| Application No.: | 09/299,684 | Group Art Unit: | 2142 |
| Filed: | April 26, 1999 | Examiner: | Biagini, Christopher D. |

For: AN ADAPTIVE WEB SERVER

APPEAL BRIEF

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I. Real Party in Interest

The assignee of the present application is Hewlett-Packard Development Company,
L.P.

II. Related Appeals and Interferences

There are no related appeals or interferences known to the Appellants.

III. Status of Claims

Claims 1-6, 8-12 and 15 are rejected. Claims 7, 13 and 14 have been cancelled. This Appeal involves Claims 1-6, 8-12 and 15.

IV. Status of Amendments

All proposed amendments have been entered. An amendment subsequent to the Final Office Action mailed September 4, 2008, has not been filed.

V. Summary of Claimed Subject Matter

As recited in Claim 1, “[a] data service system in a data service network system” is described. This embodiment is depicted at least in Figures 2 and 7. “As can be seen from Figure 2, a data service system 30 in accordance with one embodiment of the present invention is shown to include a content server 31” (page 10, lines 5-7). “[T]he content server 31 stores content files or dynamic executable code/program for access by access requests. Thus, the content files hereinafter refer to (1) static content files, (2) dynamic content files, and (3) executable programs/codes. Each of the content files is stored in a full content format and an adapted or degraded content format. A content file in the adapted content format is much smaller in size and less resource intensive than the same file in the full content format” (page 10, lines 13-19). “The adaptive load control system 40 passes the access requests to the content server 31 when receiving the requests. When the content server 31 is in an overload condition or about to be in the overload condition, the adaptive load control system 40 modifies the access requests to access their corresponding content files in the adapted content format” (page 10, lines 19-24). “This allows the content server 31 to be maintained at safe load conditions” (page 11, lines 2-3). “[T]he adaptive controller 50 determines whether the content server 31 is in the overload condition in which case the adaptive controller 50 causes the content adapter 41 to modify the URLs of all the incoming access requests to access their corresponding content files in the degraded content format or version” (page 22, lines 20-24). “The load monitor 32 is used to monitor the load condition of the content server 31 in order to detect overload condition. The load monitor 32 employs a number of monitoring mechanisms to monitor the load condition of the content server 31. One way of monitoring the load condition of the content server 31 is to monitor the response time of the content server 31” (page 18, line 23, through page 19, line 2).

As recited in Claim 9, “[i]n a data service system of a data access network system having a content server that statically stores a plurality of content files for access by external access requests, a method of maintaining the content server at safe load conditions” is described. This embodiment is depicted at least in Figures 2 and 7. “As can be seen from Figure 2, a data service system 30 in accordance with one embodiment of the present invention is shown to include a content server 31” (page 10, lines 5-7). “[T]he content server 31 stores content files or dynamic executable code/program for access by access requests. Thus, the content files hereinafter refer to (1) static content files, (2) dynamic content files, and (3) executable programs/codes. Each of the content files is stored in a full content format and an adapted or degraded content format. A content file in the adapted content format is much smaller in size and less resource intensive than the same file in the full content format” (page 10, lines 13-19). “Referring back to Figure 2, the load monitor 32 sends the load condition information of the content server 31 to the content adapter 41 and the adaption controller 50. The adaption controller 50 also receives a predetermined desired load value which indicates the threshold of the overload condition. Based on the comparison of the desired load value and the monitored load value, the adaptive controller 50 determines whether the content server 31 is in the overload condition in which case the adaptive controller 50 causes the content adapter 41 to modify the URLs of all the incoming access requests to access their corresponding content files in the degraded content format or version” (page 22, lines 16-24). “The load monitor 32 is used to monitor the load condition of the content server 31 in order to detect overload condition. The load monitor 32 employs a number of monitoring mechanisms to monitor the load condition of the content server 31. One

way of monitoring the load condition of the content server 31 is to monitor the response time of the content server 31” (page 18, line 23, through page 19, line 2).

VI. Grounds of Rejection to Be Reviewed on Appeal

1. Claims 1-6, 8-12 and 15 are rejected under 35 U.S.C. §103(a) as being over U.S. Patent No. 6,038,598 by Daneels, in view of (“Apache HTTP Server Version 1.3: Module mod_rewrite” by Engelschall, further in view of U.S. Patent No. 6,314,463 by Abbott et al., hereinafter referred to as “Abbott.”

VII. Argument

1. Whether Claims 1-6, 8-12 and 15 are unpatentable under 35 U.S.C. §103(a) by Daneels in view of Engelschall, further in view of Abbott.

According to the Final Office Action mailed September 4, 2008, hereinafter referred to as the “instant Office Action,” Claims 1-6, 8-12 and 15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Daneels in view of Engelschall, further in view of Abbott. The Appellants have reviewed Daneels, Engelschall and Abbott and respectfully submit that the embodiments recited in Claims 1-6, 8-12 and 15 are patentable over Daneels, Engelschall and Abbott, alone or in combination, for at least the following rationale.

“As reiterated by the Supreme Court in *KSR*, the framework for the objective analysis for determining obviousness under 35 U.S.C. 103 is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). Obviousness is a question of law based on underlying factual inquiries” including “[a]scertaining the differences between the claimed invention and the prior art” (MPEP 2141(II)). “In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious” (emphasis in original; MPEP 2141.02(I)). Appellants note that “[t]he prior art reference (or references when combined) need not teach or suggest all the claim limitations, however, Office personnel must explain why the difference(s) between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art” (emphasis added; MPEP 2141(III)).

Appellants note that the instant Office Action states that Daneels “does not explicitly show that the adaptive load control system modifies the access attempt by modifying a URL

(Universal Resource Locator) of an access request address” (instant Office Action; page 5, lines 11-13). Appellants understand the Office Action to rely on Engelschall as overcoming this shortcoming. However, Appellants respectfully submit that Daneels teaches away from the claimed embodiment and that Daneels teaches away from the suggested modification and combination with Engelschall.

First, Appellants respectfully submit that Daneels teaches away from “wherein the adaptive load control system modifies an access request address to access said second of said plurality of content files instead of said first of said plurality of content files by modifying a URL (Universal resource Locator) of the access request address when said content server is in an overload condition such that said content server is maintained at safe load conditions” (emphasis added) as claimed.

Appellants respectfully note that “[a] prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention” (emphasis in original; MPEP 2141.02(VI); *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984)).

Appellants understand Daneels to disclose a web server that “maps a plurality of web pages to a single uniform resource locator (URL),” (emphasis added; col. 1, line 66, through col. 2, line 1). Moreover, Daneels recites that “[m]ultiple web page sets are mapped to a single Uniform Resource Locator (URL). When a server receives a request for a URL, it determines the web page sets which can be served to the user. The server then examines each web page set in turn, evaluating the conditions for each one. When the server finds a set

where the conditions are evaluated to be true, the server returns the set's entry page as the response to the URL” (emphasis added; col. 2, lines 45-53).

Therefore, by specifically disclosing that “[m]ultiple web page sets are mapped to a single Uniform Resource Locator (URL),” (emphasis added; col. 2, lines 45-47), Appellants respectfully submit that Daneels teaches away from “wherein the adaptive load control system modifies an access request address to access said second of said plurality of content files instead of said first of said plurality of content files by modifying a URL (Universal resource Locator) of the access request address when said content server is in an overload condition such that said content server is maintained at safe load conditions” (emphasis added) as claimed.

Second, Appellants respectfully submit that there is no motivation to combine the teachings of Daneels and Engelschall, because Daneels teaches away from the suggested modification and combination with Engelschall.

Appellants respectfully submit that “[i]t is improper to combine references where the references teach away from their combination” (emphasis added; MPEP 2145(X)(D)(2); *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983)). As presented above, Appellants respectfully note that “[a] prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention” (emphasis in original; MPEP 2141.02(VI); *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984)).

In particular, as presented above, Appellants submit that Daneels teaches away from “wherein the adaptive load control system modifies an access request address to access said second of said plurality of content files instead of said first of said plurality of content files by modifying a URL (Universal resource Locator) of the access request address when said content server is in an overload condition such that said content server is maintained at safe load conditions” (emphasis added) as claimed.

Appellants further submit that Engelschall does not overcome the shortcomings of Daneels. Appellants understand Engelschall to disclose “a rule-based rewriting engine to rewrite requested URLs on the fly” (page 1). However, by specifically disclosing that “[m]ultiple web page sets are mapped to a single Uniform Resource Locator (URL),” (emphasis added; col. 2, lines 45-47), Appellants respectfully submit that Daneels teaches away from “wherein the adaptive load control system modifies an access request address to access said second of said plurality of content files instead of said first of said plurality of content files by modifying a URL (Universal resource Locator) of the access request address when said content server is in an overload condition such that said content server is maintained at safe load conditions” (emphasis added) as claimed.

Third, Appellants respectfully submit that there is no motivation to combine the teachings of Daneels and Engelschall, because the suggested modification of Daneels would change the principle of operation of Daneels.

Appellants respectfully note that “[a] prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention”

(emphasis in original; MPEP 2141.02(VI); *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984)). Moreover, Appellants note that “[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious” (emphasis added) (MPEP 2143.01; *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)).

Appellants respectfully submit that the suggested modification of Daneels results in a system in which previously mapped a plurality of content files (e.g., the web page sets) with a single access request address (e.g., a URL) with a system that would modify the URL of the access request address to a second URL of a second set of content files. Appellants submit this changes the principle of operation of Daneels from mapping a plurality of web page sets to a single URL, to a system which modifies a request address URL to a plurality of request address URLs. As such, in accordance with MPEP 2143.01(VI), Appellants submit that the combined teachings of Daneels and Engelschall are not sufficient to render the claims *prima facie* obvious, as the suggested combination of Daneels with Engelschall changes the principle of operation of Daneels.

Furthermore, the instant Office Action states that “[b]ecause both Daneels and Engelschall teach methods for modifying access request attempts, it would have been obvious to one of ordinary skill in the art to substitute one method for the other in order to achieve the predictable result of transparently redirecting users to a different URL” (emphasis added; instant Office Action; page 5, lines 15-18) Appellants submit that motivation for combining the inventions of Daneels and Engelschall is lacking based upon the asserted art. In

particular, Daneels recites “the redirection of web page content with the present invention is transparent to the user” (col. 5, lines 35-37). Therefore, Appellants respectfully submit that the asserted motivation for combining Daneels and Engelschall is insufficient because Daneels already accomplishes the asserted motivation.

Appellants respectfully note the assertion in the instant Office Action that Daneels operates by accepting an incoming request for a URL and redirecting the request to a particular web page based on server load” (instant Office Action; page 2, lines 10-12). Moreover, the instant Office Action asserts that

[t]here are numerous ways to accomplish this redirection, such as simply providing the appropriate file (an ‘internal rewrite’), asking the client to reconnect using the new URL (an ‘external redirect’), and modifying the request address to access the new URL. Incidentally, the Engelschall reference discusses all of these possibilities. Regardless, all three methods accomplish the same thing for the same reason, and are thus perfectly compatible with one another. Therefore, the proposed modification does not change the principle of operation of Daneels. (emphasis added; instant Office Action; page 2, lines 14-20)

Appellants respectfully submit that modifying a URL is not interchangeable with redirecting to a different URL, as asserted. In contrast, as described in Daneels, there is no modification of a URL. Moreover, as presented above, Appellants continue to maintain that the suggested modification of Daneels would change the principle of operation of Daneels.

Appellants further submit that Abbott does not overcome the shortcomings of Daneels and Engelschall. As presented above, Appellants respectfully submit that Daneels teaches away from “wherein the adaptive load control system modifies an access request address to access said second of said plurality of content files instead of said first of said plurality of

content files by modifying a URL (Universal resource Locator) of the access request address when said content server is in an overload condition such that said content server is maintained at safe load conditions” (emphasis added) as claimed, that there is no motivation to combine the teachings of Daneels and Engelschall, because Daneels teaches away from the suggested modification and combination with Engelschall, and that there is no motivation to combine the teachings of Daneels and Engelschall, because the suggested modification of Daneels would change the principle of operation of Daneels.

Furthermore, Appellants further submit that Abbot does not overcome the shortcomings of Daneels and Engelschall. Appellants understand Abbot to disclose a method and system for measuring queue length and delay. In particular, Appellants respectfully submit that Abbot does not teach, describe or suggest “wherein the adaptive load control system modifies an access request address to access said second of said plurality of content files instead of said first of said plurality of content files by modifying a URL (Universal resource Locator) of the access request address when said content server is in an overload condition such that said content server is maintained at safe load conditions” (emphasis added) as claimed. Moreover, Appellants respectfully submit that Abbot does not provide a motivation to combine Daneels and Engelschall as suggested. Therefore, Appellants respectfully submit that Abbot, even in combination with Daneels and/or Engelschall, does not provide a *prima facie* case of obviousness of the claimed embodiments.

In view of the combination of Daneels in view of Engelschall, further in view of Abbott, not satisfying the requirements of a *prima facie* case of obviousness, Appellants respectfully submit that independent Claims 1 and 9 overcome the rejection under 35 U.S.C. §

103(a), and that these claims are thus in a condition for allowance. Appellants respectfully submit the combination of Daneels in view of Engelschall, further in view of Abbott, also does not teach or suggest the additional embodiments recited in Claim 2-6 and 8 that depend from independent Claim 1 and Claims 10-12 and 15 that depend from independent Claim 9. Therefore, Appellants respectfully submit that Claims 2-6, 8, 10-12 and 15 also overcome the rejection under 35 U.S.C. § 103(a), and are in a condition for allowance as being dependent on an allowable base claim.

Conclusion

Appellants believe that pending Claims 1-6, 8-12 and 15 are patentable over the asserted art under 35 U.S.C. § 103(a). As such, Appellants respectfully request that the rejections of Claims 1-6, 8-12 and 15 be reversed.

The Appellants wish to encourage the Examiner or a member of the Board of Patent Appeals to telephone the Appellants' undersigned representative if it is felt that a telephone conference could expedite prosecution.

Respectfully submitted,
WAGNER BLECHER LLP

Dated: December 9, 2008

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VIII. Appendix - Clean Copy of Claims on Appeal

1. A data service system in a data service network system, comprising:

a content server that statically stores a plurality of content files for access by external access requests, wherein a first of said plurality of content files comprises content stored in a full content format and wherein a second of said plurality of content files comprises corresponding content stored in an adapted content format which is less resource-intensive to serve than the full content format; and

an adaptive load control system coupled to said content server to pass the access requests to said content server, wherein the adaptive load control system modifies an access request address to access said second of said plurality of content files instead of said first of said plurality of content files by modifying a URL (Universal resource Locator) of the access request address when said content server is in an overload condition such that said content server is maintained at safe load conditions, said adaptive load control system comprising:

a load monitor that monitors the load condition of said content server without requiring monitoring of the network, said load monitor establishing the load condition of said content server by measuring an amount of time between when said content server receives the external access request and when said content server provides the external access request.

2. The data service system of Claim 1, wherein said the adaptive load control system modifies the access request address to access said first of said plurality of content files to access the content in the full content format instead of in the adapted format when said content server is not in the overload condition.

3. The data service system of Claim 1, wherein the adaptive load control system further comprises:

a content adapter coupled to said load monitor and said content server to modify the access request address to access the corresponding said second of said plurality of content files to access content in the adapted content format instead of in the full content format when the load monitor indicates that said content server is in the overload condition.

4. The data service system of Claim 3, wherein said adaptive load control system further comprises an adaption controller coupled to said load monitor and said content adapter to cause said content adapter to modify the access request address to access said second of said plurality of content files to access content in the adapted content format instead of in the full content format when said load monitor indicates that said content server is in the overload condition.

5. The data service system of Claim 4, wherein said adaption controller determines if said content server is in the overload condition by comparing the load information received by said load monitor against a predetermined desired load value of said content server.

6. The data service system of Claim 3, wherein said content adapter modifies the access request address to access said first of said plurality of content files to access content in the full content format instead of in the adapted content format when said load monitor indicates that said content server is not in the overload condition..

8. The data service system of Claim 1, wherein for each of said plurality of content files, said content server includes a service directory that directs the modified access request address to access said first of said plurality of content files and said second of said plurality of content files.

9. In a data service system of a data access network system having a content server that statically stores a plurality of content files for access by external access requests, a method of maintaining the content server at safe load conditions, comprising:

determining load condition of said content server without requiring determining load conditions of a network when the data service system receives an access request address to access of a first of said plurality of content files statically stored in said content server comprising content stored in a full content format, wherein said determining of said load condition of said content server comprises measuring an amount of time between when said content server receives the external access request and when said content server provides the external access request; and

if said content server is determined to be in an overload condition, then modifying the access request address to access a second of said plurality of content files statically stored in said server and comprising corresponding content in an adapted content format instead of in the full content format by modifying a URL (Universal resource Locator) of the access request address, and wherein the adapted content format is less resource-intensive to serve than the content in the full content format such that the content server is maintained at the safe load conditions.

10. The method of Claim 9, further comprising modifying the access request address to access said first of said plurality of content files statically stored in said content server instead of said second of said plurality of content files statically stored in said content server format when said content server is determined not to be in the overload condition.

11. The method of Claim 9, wherein the determining load condition further comprises:

obtaining the actual load condition of said content server using a load monitor; and
comparing the actual load condition with a predetermined desired load condition to determine if said content server is in the overload condition.

12. The method of Claim 9, wherein the modifying the access request address is performed by modifying a URL of the access request address.

15. The method of Claim 9, wherein the determining load condition of said content server is performed either within said content server or external to said content server.

IX. Evidence Appendix

None. No evidence is herein appended.

X. Related Proceedings Appendix

None. No related proceedings are herein appended.